The report committee for Murktarat A. Yussuff
Certifies that this is the approved version of the following report:

Àjọ:
A Certification to Promote Nigerian Sustainable Design

APPROVED BY
SUPERVISING COMMITTEE:

Carma Gorman, Supervisor

James Walker, Co-Supervisor

Àjọ:

A Certification to Promote Nigerian Sustainable Design

by

Murktarat A. Yussuff

Report

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Fine Arts

The University of Texas at Austin

August 2019

Dedication

This work is dedicated to the land now known as Nigeria, and the brilliant minds of Yorubaland. I also dedicate this work to my ancestors: my grandmother Umuaani Adeknubi Atunwa Ojewole-Folorunsho, my late siblings Muhsinah Ayomide and Mohammad Yussuff, and to my mother, Sola Yussuff, a cultural activist and inspiration to me. And to my dear elders Adeniran Adeboye and Shakurah Abdul-Samad. Thank you.

Ẹ ku'toju omo.

Acknowledgements

First and foremost, I would like to thank my community of elders, and the Yoruba activists who have instilled me with the vision to pursue my calling as a designer. Thank you to my supervisors Carma Gorman and James Walker. Thank you to all my professors: to Jiwon Park for her advice through studios and critiques, to Kate Catterall for her unwavering and tenacious support, to Alyson Beaton for her encouragement, and to Jon Freach for his work on ecosystems. Thank you, Kevin Auer, for your perspective and your enthusiasm. And to Ajinkya Barve, Juliana Castro, Ekin Levent, Kira Street, Subodh Trivedi, Jean Yang, and Eric Zimmerman—the class ahead of mine—thank you for your wisdom and assistance. To my cohort Gordon Moakes, Lauren Smedley, Bhargavi Joglekar, and Jacob DeGeal, I thank you for the many lessons you have taught me and the knowledge I've gained from working alongside you. Thank you to my dear friend Kira Street for your constant grace and support throughout this process. Thank you to my friends and comrades Ariel Jackson, Moyo Oyelola, and Hakeem Adewunmi, and Professor Edna Ledesma.

Thank you to my mentor, Professor Moyo Okediji, for creating home for me 6,644 miles away from Nigeria, and to my friends, family, and colleagues in Lagos: Obayomi Anthony, Zainab Ashadu, Rukayat Ladoja, Yegwa Ukpo, Adeju Thompson, Tushar Hathiramani, Yadichinma Kalu, Elizabeth Labake, Uche, Charlotte Longhorst, and Ugochuckwu Hitch Emebiriodo. You have all reminded me why this work must be done and that I have the ability to accomplish it.

Abstract

Àjọ:
A Certification to Promote Nigerian Sustainable Design

Murktarat Yussuff, MFA

The University of Texas at Austin, 2019

Supervisor: Carma Gorman, Co-Supervisor: James Walker

Why is there not more sustainable design in Nigeria? Despite being Africa's Mecca of cultural production, and largest economy, Nigeria has the highest rates of poverty globally, along with some of the world's worst waste issues, and is plagued by infrastructural and political challenges. Many Nigerian designers and NGOs have attempted to encourage sustainable design in Nigeria, but they have had only limited success because they have typically relied on Western models that are not a good fit with Nigerian infrastructures and culture(s).

Addressing the challenge of sustainable design in Nigeria requires an incremental approach that is sensitive to Nigeria's sociocultural and economic contexts, and that does not unrealistically expect Nigeria to change overnight. This approach must consider the limitations and challenges of the current context and find ways to encourage and support even modest gains in environmental, cultural, and social sustainability simultaneously. Àjọ is a sustainable design certification system that works toward that goal by showcasing and promoting Nigerian sustainable design. The platform takes its name from the Yoruba word *àjọsepọ* (*to do together*) and is inspired by the legacy of the grassroots cooperatives that Nigerians of the 1930s used in the face of structural obstacles in colonial Nigeria. The Àjọ

certification system articulates sustainability standards for Nigeria that are not only environmentally but also culturally and socially appropriate.

Keywords: Nigeria, product design, environmental sustainability, decolonizing design, design justice, sustainable certification systems, branding, badging, social sustainability, cultural sustainability

Table of Contents

List of Figures

Why Nigerian Sustainable Design?

As a young teenager growing up between Nigeria and the United States in the early 2000s, I became deeply fascinated with the way things were made in my home country of Nigeria. At that time, imported and Western-made goods, called *Tokunbo*, were valued more than Nigerian-made goods, even if they were secondhand. The theory was that these goods were of better quality.

I didn't share this sentiment, perhaps because I had easy access to "Western" goods (most of which were actually produced in China) when in America, or because of the stories I heard about Nigerian makers adding "Made in [*Insert Western Country*]" labels to their work, and no one being the wiser. Instead, I was fixated on how things were made in Nigeria. What manufacturing there was, was done on a small scale, and locally. I saw skilled furniture makers, welders, tailors, and jewelry makers working outside in public spaces with every day and with unconventional materials. The ingenuity of material use, such as plastic bags used as fillers for woven bracelets, was born out of need. Nevertheless, this ingenuity made me consider waste, material, and design differently.

For several years I undertook my own Nigerian-based design projects, working with local artisans and makers. Through these Nigerian artisans I had easy access to fabrication processes that weren't available to me in America. I also had the ability to incorporate unconventional materials into my designs. These experiences opened my eyes to possibilities I hadn't previously considered.

Over the years I developed a concern for social justice, design, and environmentalism in Nigeria. And throughout this process my young impressions informed my work. What I witnessed then, and still see now, is the potential for a sustainable and self- sufficient Nigeria created through design.

The Challenges of Designing Sustainably in Nigeria

Unbeknownst to most people outside of the African continent, Nigeria is a prolific space of creativity and making. Nigeria is home to the second largest film industry, to one of the most prominent fashion industries in the world, and to Afrobeat, the most popular African music in the world.[1] As a nation, it continues to grow in global influence.[2] Taking advantage of the country's abundant natural resources and its long history of artisanship and cultural trendsetting, many aspiring entrepreneurs have turned to design. From the work of these designers has come an abundance of innovative products, especially fashionable clothing and accessories, which are renowned throughout the African continent.

However, Nigeria has never developed an ethos of sustainable design, even though it would benefit greatly from adopting more sustainable production and consumption practices. Nigeria ranks seventh in 2019's mid-year global pollution index, has one of the largest rates of deforestation globally, one of the highest and deadliest rates of air pollution globally, and the ninth-highest rate of mismanaged plastic and marine waste in the world.[3]

---

[1] Bright, Jake. "Meet 'Nollywood': The Second Largest Movie Industry In The World". Fortune, June 24, 2015, Https://Fortune.Com/2015/06/24/Nollywood-Movie-Industry/; Kazeem, Yomi. "The Global Rise Of Nigeria's Afrobeat Music Could Help Fix The Local Industry's Problems". Quartz Africa, October 4, 2018. Accessed May 4, 2019. https://Qz.Com/Africa/1411996/The-Global-Rise-Of-Nigerias-Afrobeats-Music-Could-Help-Fix-The-Local-Industrys-Problems/

[2] Valavanis, Adam. "Nigerians' Growing Cultural Influence Around the World". Council on Foreign Relations, November 7, 2018, https://www.cfr.org/blog/nigerians-growing-cultural-influence-around-world (accessed May 4, 2019).

[3] Numbeo. "Pollution Index for Country 2019 Mid-Year. Accessed August 5, 2019. https://www.numbeo.com/pollution/rankings_by_country.jsp;
Food and Agriculture Organization of the United Nations, Progress towards sustainable forest management. Global Resources Assessment 2005, Accessed June 27, 2019. http://www.fao.org/3/A0400E/A0400E14.pdf;
Health Effects Institute. 2019. State of Global Air 2019. Data source: Global Burden of Disease Study 2017. IHME, 2018. Accessed August 5, 2019, https://www.stateofglobalair.org/data/#/air/table;
Earth Day.Org, "Top 20 Countries Ranked by Mass of Mismanaged Plastic Waste", April 6, 2018. Accessed August 5, 2019, https://www.earthday.org/2018/04/06/top-20-countries-ranked-by-mass-of-mismanaged-plastic-waste/

Deforestation, plastic waste pollution, and air pollution are simultaneously the reasons why Nigeria *needs* sustainable design alternatives, and the reasons why it is so *difficult* to design there in environmentally sustainable ways.

LACK OF INFRASTRUCTURE

Would-be sustainable designers in Nigeria face several categories of challenges not found in western contexts, such as lack of electrical service. Some estimates put the number of Nigerians without electricity at 93 million out of the country's population of 180 million.[4] Most of those who have no access to electrical grids at all live in rural regions of the country and use fossil-fuel-burning generators to power electronic devices, refrigerators, and other necessities. These generators are not only more expensive than grid electrical service, but also cause environmentally hazardous air pollution.

Moreover, even Nigerians who live in cultural production centers, such as Lagos, do not have *reliable* electricity. As noted in a *Quartz Africa* article from June 2019, unreliable electricity costs the Nigerian economy 29 billion US dollars per year.[5] This lack of reliable electricity makes the cost of business more expensive, and the pace of production less predictable than in countries where energy infrastructures are more stable. For example, though it is funded and attended by the upper echelons of Nigerian society, even Lagos Fashion Week in 2018 suffered from lack of electricity. Designers, models, and design assistants such as myself needed electricity for steam irons to press clothes, and

---

[4] Malo, Ify. "60% Rural Electrification Target By 2020 Feasible". *Energy Central*, January 30, 2019, Accessed May 5, 2019. https://www.energycentral.com/news/60-rural-electrification-target-2020-feasible

[5] Olowosejeje, Samuel Ayokunle. "Nigeria's Unreliable Electricity Costs Its Economy $29 Billion A Year—Solar Power Would Save Billions." Quartz Africa, June 1, 2019, https://qz.com/africa/1632978/nigeria-solar-power-could-fix-costly-electricity-problems/ (accessed June 14, 2019).

for lighting to dress and style models. Without electricity, it was difficult to complete these basic pre-show tasks, which led to delays in show times (figure 1).[6]

Figure 1. Makeup artists during Lagos Fashion Week 2018 electricity failure. Photo: AFP. Available at BBC.com, https://www.bbc.com/news/world-africa-47217557 (accessed 15 May 2019).

The lack of reliable electricity means that all designers—even those seeking to create sustainably—must use air-pollution-causing generators to meet production deadlines. In addition, the unpredictable electrical service also makes it difficult for designers, suppliers, and manufacturers to communicate when the internet is down and mobile phones cannot readily be recharged; to create predictable and reliable production

[6] "Five things about Nigeria: The superpower with no power". *BBC*. February 14, 2019. Accessed May 5, 2019. https://www.bbc.com/news/world-africa-47217557

schedules; or even to establish viable businesses at all without first investing in costly generators and other tools to compensate for unreliable (or nonexistent) electrical service.

The challenges of running a business in Nigeria due to the inadequate electric infrastructure are further compounded by epically gridlocked traffic, which makes delivering materials and finished goods on time difficult. According to former Lagos Governor Akinwunmi Ambode, Nigeria's commercial capital Lagos loses an estimated 42 billion Nara (115,438,528 US dollars) to lack of productivity caused by traffic congestion.[7] Poor transportation infrastructures also make it difficult for waste management vehicles to operate within urban areas, which means that people usually burn or bury their waste. This results in harmful air pollution, and deprives the country of potentially environmentally sustainable resources.

Another pressing problem is the lack of governmental, NGO, and privately sponsored infrastructures supporting sustainable design. Although some sustainability initiatives do exist in Nigeria, they often provide little infrastructural support. One example is provided by Elizabeth Labake, an emerging designer and founder of Làbákè Lagos, who creates zero-waste collections from secondhand clothing.[8] Although she gained exposure when she won Lagos Fashion Week's "Green Access" sustainability competition sponsored by beverage manufacturer Fayrouz, she complained that she received no mentorship or resources beyond the award itself.[9] She also expressed that sustainable designers in Nigeria needed statistical data regarding "sustainability-curious" buyers so

---

[7] Adekoya, Remi. "Democracy has failed in Nigeria when voters no longer care who wins". *The Guardian. March 1, 2019,* https://www.theguardian.com/commentisfree/2019/mar/01/democracy-failed-nigeria-turnout-presidential-election; Lewis, Peter. "The Dysfunctional State of Nigeria" in *Short of The Goal:* U.S. Policy and Poorly Performing States, Birdsall, Nancy. (Washington, D.C.: Center for Global Development, 2006). https://www.cgdev.org/sites/default/files/archive/doc/shortofthegoal/chap3.pdf

[8] Cgtn Africa. "Second-Hand Clothing Industry Booms In Nigeria," Hosted By Phil Ihaza, Global Business, May 19, 2018. Https://Www.Youtube.Com/Watch?V=E4vwrw_Zugs

[9] Elizabeth Labake, Interviewed by Author, February 2, 2019.

they can begin to cater to and enculturate these audiences to create sustainable design consumer bases. But initiatives like the Green Access award are not part of larger systems of production, nor do they help designers develop these kinds of resources, and thus do not seem to have a long-term impact.

LACK OF CONSUMER DEMAND

Possibly an even greater challenge than Nigeria's infrastructure is elite Nigerian consumers' lack of awareness about, or interest in, sustainability. Marketing products as "sustainable" is not as compelling a selling point in Nigeria as it is in the West. As a result, Nigerian designers seeking to work sustainably are rarely able to charge enough higher prices for their sustainable products to offset their greater expenses. For example, Rukky Ladoja, founder of Grey Projects, a top Lagos-based ready-to-wear clothing line, explained in an interview how lack of a sustainability-oriented audience hurt her attempts to create sustainable design solutions for her brand.[10] Ladoja attempted to implement capsule collections made from zero-waste fabric as well as buy-back programs for her loyal customers. These initiatives, Ladoja said, both failed due to an undervaluing of the extra labor that goes into sustainably produced products, as well as an unwillingness by her customers to sell back clothes, even if they would not use them again.

One Lagosian designer, however, has successfully created an elitist-focused model of sustainability to appeal to the demographic who would not partake in Ladoja's sustainable initiatives. Zainab Ashadu, owner of Zashadu, a sustainable luxury handbag company, emphasizes luxury, rather than sustainability, in her advertising (figure 2). Though she sometimes promotes the benefits her company provides to its workers online

[10] Rukky Ladoja, Interviewed by Author, October 27, 2018.

(figure 3), she does not ask consumers to change any of their existing habits, and she emphasizes the appearance and craftsmanship of her brand's bags in her marketing, rather than trying to persuade potential customers that it is their moral obligation to consume goods that are sustainable or that are made under fair labor conditions. The environmental sustainability and social sustainability practices happen behind the scenes, and include free housing and healthcare for artisans, recycled packaging, sustainably sourced materials, partnerships with other Nigerian industries, and fair wages.[11] Zashadu's marketing does not require the Nigerian elite to think differently about their spending habits or values. Rather, Zashadu offers consumers the opportunity to buy a beautifully crafted, luxury bag at a high cost. That it happens to be sustainable Nigerian design is a bonus for some consumers, but not the main focus of Zashadu's marketing.

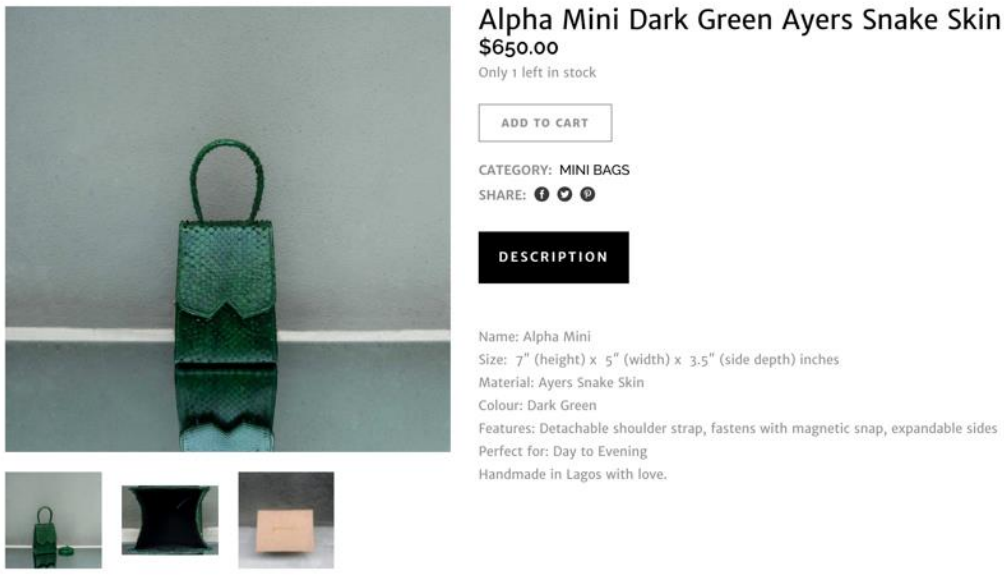

Figure 2. Screenshot Zashadu handbag, https://www.zashadu.com (Accessed July 30, 2019).

[11] Zainab Ashadu, Interviewed by Author, March 3, 2019.

Figure 3. Screen shot of Zashadu Instagram post, October 6, 2018, https://www.instagram.com/p/BomIQUwBw0G/?igshid=p4bppg3u3hff (accessed May 12, 2019).

The elite-focused form of sustainable design exemplified by Zashadu is not without its flaws, however. Up-and-coming product designers like Obayomi Anthony believe that one of the greatest challenges to creating sustainable development in Nigeria is the kind of elite-focused sustainable luxury model Zashadu uses. In his words, such models make sustainability “a rich man thing” because they are limited to the upper classes and therefore cannot have a widespread impact.[12] Anthony believes instead that the key to creating more sustainable design in Nigeria is focusing on democratic, everyday items, and promoting environmental sustainability values to the average Nigerian.

[12] Obayomi Anthony, Interviewed by Author, January 10, 2019.

LACK OF TRUST

Other more nuanced challenges unique to the Nigerian design context include a preference for face to face and personal contact when doing business, a preference for mobile banking (related to the fact that exact change is a common problem), and a general sense of mistrust that pervades everyday social interactions due to political corruption and economic inequality. Despite the fact that trust tends to increase with GDP, India and South Africa, whose GDPs are lower than Nigeria's, have significantly higher trust attitudes: in 2014, Nigeria scored a mere 14.78% on a global "interpersonal trust attitude" index, while South Africa and India scored 23.51% and 32.95% respectively.[13]

One reason trust is so scarce in Nigeria is because of political corruption.[14] Specifically, the government's inability to stamp out corruption, including bribery, misappropriation, nepotism, and outright theft, makes it very difficult for Nigerian designers and artisans, sustainable or not, to operate profitably.[15]

Nigerians' inability to trust their government leads them to distrust one another, too.[16] A study conducted in 2008 found that the most important determinant of interpersonal trust in Nigeria was trust in political institutions.[17] For example, lack of social trust, paired with a dearth of environmentally sustainable values, made it difficult

---

[13] Our World in Data. "Interpersonal trust attitude". Accessed June 16, 2019. https://ourworldindata.org/trust

[14] As the Our World in Data study found, inequality is negatively related to trust, an important contributor to economic development.

[15] "Corruption Perceptions Index 2018 - Transparency International". Transparency International. Accessed August 5, 2019, https://www.transparency.org/cpi2018/results;
Page, Matthew. "Nigeria's Small Businesses Want Government Help, But Corruption is Draining It Away." *Quartz Africa*, April 2, 2019. Accessed May 1, 2019. https://qz.com/africa/1585957/nigerian-corruption-is-draining-its-small-businesses/.

[16] The example later in this paper of the Wecyclers issue is one of many examples of how infrastructural and systemic failures perpetuate social distrust. Rukky Ladoja's creation of an Àjọ amongst her workers is one example of designing shared accountability to help overcomes these challenges.

[17] Kuenzi, Michelle T. "Social Capital and Political Trust in West Africa". *Afrobarometer Working Papers*. No. 96. (2008). https://www.files.ethz.ch/isn/91878/AfropaperNo96.pdf

for me to source broken chairs from event planners, even though they had many broken chairs that they could no longer use and nowhere to else to dispose of them.

Aside from sustainability-specific design challenges like sourcing, mistrust proves to be a challenge for creating design work in Nigeria generally. In my many years of working on my own small design initiatives in Nigeria, mistrust was a common theme. When sharing my creative ideas with other Nigerian designers, I was consistently told not to share my ideas with anyone else for fear that they might be stolen. It is not uncommon for artisans and other creatives to steal ideas from other designers, and I have experienced this first-hand.

The presence of mistrust throughout Nigeria is likely part of the cause of yet another challenge to the creation of overall sustainable design development. Rather than working collectively and in community, Nigerian sustainable designers and organizations work independently. This focus forces designers, brands, and various design initiatives to start from scratch trying to find solutions for problems that other projects and designers have already resolved. As designer Obayomi Anthony described, there is a need for a community of sustainably-minded designers in order "to know who has like minds…[and find] designers who want to push the movement [in Nigeria]."[18]

[18] Obayomi Anthony, Interviewed by Author, December 3, 2018.

Past Attempts to Design Sustainably in Nigeria

Many designers, NGOs, and fashion platforms have tried to address the entwined issues of design, infrastructure, and sustainable development in Nigeria with varying approaches and degrees of success. These efforts fall into three broad categories: un-integrated "one and done" architectural designs, craft and skill-acquisition labor-focused solutions, and free-enterprise waste disposal businesses. Unfortunately, many of these interventions replicate inefficient models of sustainability from the West that are not suited to Nigeria's infrastructures, economy, and/or sociocultural environment. Therefore, these attempts have had little success in addressing Nigeria's simultaneous needs for environmental, social, and cultural sustainability.

"One and Done" Approaches

The Makoko Floating School was built by architect Kunle Adeyemi to address environmental and climate challenges posed to the water village community of Makoko, located in Lagos state Nigeria, in 2012. A Nigerian architect educated at University of Lagos and Princeton University and working in the Netherlands, Adeyemi procured a large amount of funding via the Heinrich Boll Foundation to address the challenge of frequent flooding of the Makoko neighborhood school, which prevented children from attending school in healthy and safe conditions. As a solution to the education challenge in Makoko, Adeyemi created a floating school with design informed by vernacular architecture, using empty barrels commonly found throughout Nigeria as the flotation devices (figure 4).

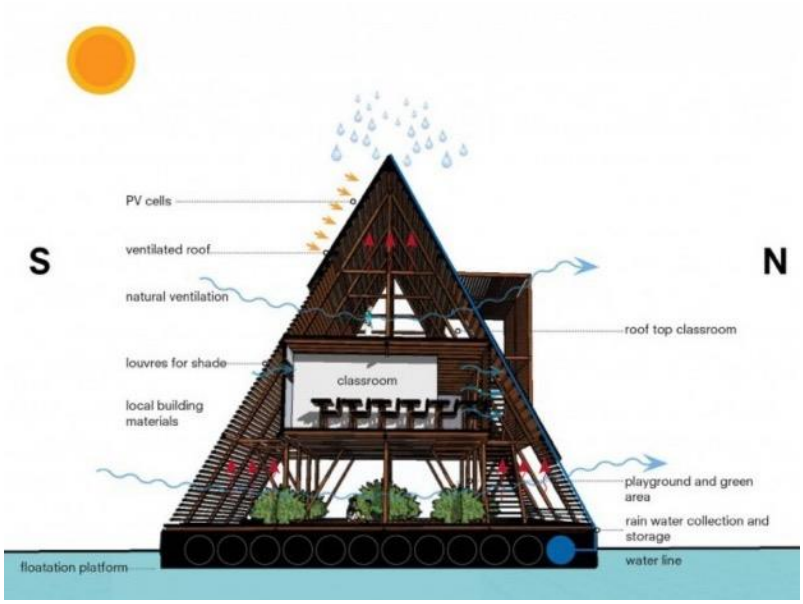

Figure 4. Design for Makoko Floating School. Photo: NLÉ Architecture Firm. Available at Nleworks.com, http://www.nleworks.com/case/makoko-floating-school (accessed July 20th, 2019).

Figure 5. Bird's-Eye Photo of the Makoko Floating School. Photo: NLÉ Architecture Firm, available at Nleworks.com, http://www.nleworks.com/case/makoko-floating-school (accessed July 20, 2019).

The Makoko Floating School was built, and Folorunsho Folarin-Coker, Lagos's then-minister of tourism, donated solar panels to it as an act of charity.[19] After being built the school won several awards, including an international architecture prize at the 2016 Venice Biennale. It was also featured on media outlets such as *The New York Times*, *The Guardian*, CNN and Al Jazeera, and was praised as a model for equitable sustainable intervention. New design iterations based on the Makoko School's apparent success were prototyped as solutions to climate change issues in other cities. But in reality, the Makoko Floating School wasn't sustainable. In 2015, the school suddenly collapsed. As journalist Allyn Gaestel details in the article "Things Fall Apart" for *The Atavist Magazine*, "the gap between the gloss presented to the world and the reality on the ground was vast."[20] The architects never incorporated systems for longevity or even proper usage. They presumed, it appeared, that building the structure was enough, that their intervention would somehow seamlessly solve all the various issues interwoven into Makoko's school problem. Over a year after the school was opened, no toilets and blackboards were installed, and no classes were held. When classes were eventually held, they only took place for a few months. The total usage of the school was a mere four months in the three years it was open. As members of the community complained, though the school was named after their community, it was an "individual affair." Power was not transferred from the NLÉ architecture firm to the Makoko community. The designer and his firm did not help the community gain the resources they needed to maintain the school.

Ultimately, though the project had all the public media branding of sustainable intervention, it was a failure. Rather than focusing on small-scale public needs, creating

[19] The solar panels, the author noted had to be guarded from thieves who commonly stole electronics and wiring in the area.

[20] Allyn, Gaestel. "Things Fall Apart." *The Atavist Magazine*, February 2018. https://magazine.atavist.com/things-fall-apart-makoko-floating-school

better ecosystems in Makoko, or strengthening existing social systems, the Makoko Floating school project was a discrete, "one and done" project that was conceived in isolation from local social, economic, and educational systems. The school itself was not even structurally sound, hence its collapse, but it also did not integrate itself into the society it claimed it would help. As a Makoko community member noted "… 'it's a good building,' but nobody knows the inside, what is going on."[21]

In a similar example of locally insensitive "one and done" architectural design, Nigerian-born Australia-trained architect Ada Umeofia designed "improved" stalls for Nigerian outdoor meat markets. These stalls were meant to make the process of meat purchasing more organized and sanitary. However, the architect neglected the social interaction aspect, a major part of the market social dynamic. Her design made it difficult for market stall holders to speak to one another or to attempt to poach one another's customers, a key social element of Nigerian market culture. Because she overlooked an important social dimension of how people *use* market stalls, her design was not utilized in the market and vendors instead continued to use their original kiosks.

Both Adeyemi and Umeofia created designs that look attractive and seem plausible enough from a functional perspective.[22] However, because both designs neglected to consider the social-cultural nuances specific to the Nigerian context, their target audiences did not use them.

---

[21]Allyn, Gaestel. "Things Fall Apart." *The Atavist Magazine*, February 2018. https://magazine.atavist.com/things-fall-apart-makoko-floating-school

[22] This is under the generous presumption that lack of sound structural design was not the sole reason for the collapse of the Makoko school. Given Adeyemi's training, it seems fair to presume that there were other factors leading to the collapse. And what is most significant about the collapse was that it revealed other failures behind the façade of the school's success.

CHARITABLE SKILLS ACQUISITION-FOCUSED APPROACHES

Skills acquisition programs rely heavily on craft-focused branding, promoting themselves as charitable organizations assisting the impoverished. Craft-focused branding can also be described as "feel-good" branding: it centers images of laborers working, accentuating their low socioeconomic class and lack of privilege (figure 6). Craft-focused African sustainable design can be found at retailers such as Whole Foods and Ten Thousand Villages, often in the form of products such as textiles and baskets. This branding style compels purchases through colonialist and racialized tropes of "The White Man's Burden." [23] Notably, Lagos Fashion Week, Nigeria's largest fashion platform, also employs a craft-oriented "feel-good" branding approach. In 2017 its campaign featured portraits of artisans at work coupled with the tagline "[w]eaving traditional heritage into contemporary fashion" (figure 7). The phrasing suggests a commonly used trope in contemporary fashion meant to change how historical African design techniques are perceived. However, the dichotomy between "traditional" and "contemporary" is part of historic depictions of non-white people needing to "develop" and "catch up" with modernity.[24]

[23] "The White Man's Burden" the title of a poem by Rudyard Kipling written in 1899. A general phrase used to describe a morally motivated desire made by whites to uplift people of color.

[24] Escobar, Arturo. *Designs for The Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds.* Durham and London. Duke University Press, 2018

Figure 6. Example of Craft-focused branding, from Alaffia brand of toiletries and baskets commonly stocked at Whole Foods. Photo Alaffia. Available at Alaffia.com, https://www.alaffia.com/pages/alaffia-commitments

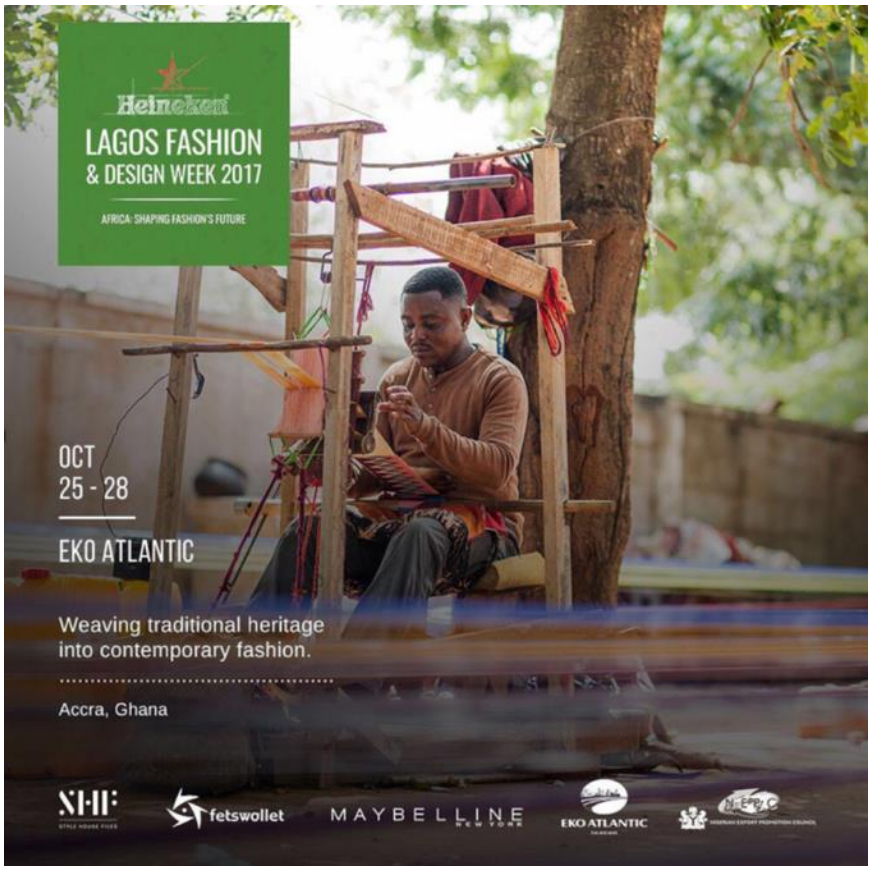

Figure 7. Lagos Fashion Week. Instagram. Photo. October 12, 2017. Advertisement for Lagos Fashion Week 2018. Accessed July 26, 2019. https://www.instagram.com/p/BaJiQ53FC9v/

For example, Adara Foundation and The Style House Files Incubator are two organizations in Nigeria that have attempted to create better design production systems in Nigeria by helping to create more laborers skilled in production. Style House Files and Adara Foundation provide workers with training in garment production as well as other forms of professionalization. The Adara Foundation focuses on batik training for low income women, does small collaborations with luxury designers, and also hosts financial literacy programs.

Though targeted at disadvantaged groups, access to skills training is limited to participants who meet screening requirements, which sometimes includes education requirements. The Style House Files incubator, an organization run by the producers of Lagos Fashion Week, requires unpaid training modules that last for several months. Only those who can a commit to these unpaid trainings can benefit, and even successful Adara foundation trainees are not assured jobs at the end of their internship/apprenticeship.

Skills acquisitions programs in Nigeria do not focus on sustainable design or use renewable energy; however, they do suggest ways to increase the social sustainability of environmental initiatives by focusing on job creation and job training. Adara, for example, uses some natural materials and techniques in their training such as indigo dyeing, which could (arguably) lead to textiles that are more environmentally sustainable than synthetic and chemically dyed fabrics. In 2018, The Style House Files Incubator produced a capsule collection for an organization called the Designer's Consociate. The collection of naturally dyed shirts was made from locally grown non-synthetic textiles and was marketed as an eco-friendly capsule collection to encourage conversations about locally-made environmentally sustainable designs.

Both Adara Foundation and The Style House Files Incubator have the capacity to train a labor force of disadvantaged workers that can produce sustainable products. As the Designer's Consociate example shows, it is not difficult to plug environmentally sustainable processes and techniques into these skills-training programs. There are, however, several elements of these skills-training programs that could be improved. First and foremost, both organizations rely on generators. Investments in renewable energy could create both economic benefits and environmental benefits to make both organizations more environmentally sustainable.

Despite their use of nonrenewable energy and their unfortunate tendency to invoke colonial stereotypes of poor Africans who need Western charity to flourish, these programs are making important strides in reducing inequality by training low-income workers. These organizations would be more socially sustainable if they included worker buy-in and/or more direct routes to social mobility. Nonetheless, skills acquisition programs like these have the potential to become a socially sustainable element of an environmentally, socially, and culturally sustainable design production system in Nigeria.

FREE-ENTERPRISE WASTE DISPOSAL BUSINESSES IN NIGERIA

Historically in Nigeria, post-consumer waste such as plastic bottles has been reused rather than recycled. People who sell oil and other liquids in the market collect old plastic bottles and reuse them to sell palm oil and other liquid goods. Formalized recycling efforts are not yet a direct threat to these vernacular traditions of reuse, because as yet there is plenty of plastic waste to go around in Nigeria. However, a business called Wecyclers is Lagos's first of many formalized, industrial-scale recycling organizations. The organization gives points in exchange for recycled waste. Citizens can use these points to purchase small necessities such as phone cards and washing soap.

Wecyclers' business model relies on businesses outside of Nigeria, such as Coca-Cola, buying the recycled plastic waste in pellet form. Many organizations in Nigeria have emerged replicating Wecyclers' sustainability model such as Recycle Points and SustyVibes. However, none have escaped the reliance on exporting the plastics they gather to corporations abroad, presumably because there are not enough industries in Nigeria that use post-consumer plastics.

Although Wecyclers and organizations working on similar models have been reasonably successful in creating a system that encourages Lagosians to recycle, they have not yet "closed the loop" by developing models and systems that would allow Nigerians to benefit from their own plastic waste, rather than sending these resources abroad for others to profit from. If the vision for formalized and industrialized recycling of post-consumer plastic had a more Nigerian-centric focus rather than an export focus, it could likely serve as a useful industrial resource for Nigerian sustainable design production. For example, materials from Wecyclers could be reprocessed into needful items such as buttons and zippers, which Nigeria currently imports.

Beyond its export focus, which detracts from its ability to contribute directly to Nigerian sustainable design production, Wecyclers' system is also not an ideal avenue for better Nigerian sustainable design production because it is still grappling with how to create trust. The social milieu of Nigeria, wherein bureaucratic systems often fail, is evident at Wecyclers as well. During my interview with the company, two elder women filed a complaint that their point totals did not accurately reflect their recycling activity for the past year. In Yoruba they expressed both distress and suspicion towards the Wecyclers agent who had been coming to collect their recycled goods, and frequently assuring them that they would receive points, though they never did. During that visit it was clear that the company is still looking for ways to ensure that the points people earn will be tallied correctly. At the end of this interaction the two elderly women left with no clear resolution or recompense for the points they said they were owed.

Companies such as Wecyclers using a free-enterprise model of waste disposal in Nigeria have been successful where the Nigerian government has not. They have been mobilized throughout Nigeria and create an alternative solution to the high rates of mismanaged plastic waste and marine debris in Nigeria. Importantly, these enterprises have

also begun establishing the foundations of new models for sustainability within Nigeria. Everyday citizens who might not otherwise be interested in sustainability or find value in it, are incentivized through gaining clear benefits from recycling such as phone cards, washing soap and other household goods. This incentive model has the potential to create relevant models and education about sustainability, something many Nigerian sustainable designers say there is a need for. However, if these systems are unable to overcome the issues of trust present in the system, by creating a stronger system and ensuring (for example) that all citizens' points are tallied as they should be, the success of this incentivized model may not last. Arguably, if the model were to grow into also creating Nigeria-made post-consumer plastic designs and creating everyday goods useful to Nigerians, this could serve as an alternative way to help Nigerians see the value and immediate benefits of environmental sustainability. A mutually beneficial partnership with Nigerian-based sustainable designers would allow this existing approach to join its successes in creating greater social value around environmental sustainability with environmentally sustainable product design. Thus, though this approach as it exists falls short, it does bear the capacity to help create larger systems of environmental, cultural, and sustainable design in Nigeria if augmented by industries that would help close the recycling loop.

LESSONS FROM PAST ATTEMPTS TO DESIGN SUSTAINABLY

The impact of "one and done" buildings, of charitably-funded labor training, and of recycling businesses such as Wecyclers on sustainable design has as yet been minimal in Nigeria, because these solutions have either not been appropriate to the Nigerian context, or because they operate in isolation rather than as part of holistic systems. Nigeria's many infrastructural, social, and cultural challenges suggest that making sustainable design

successful there will require a very different approach than the often Western -influenced ones designers and brands have adopted. To make environmental sustainability viable in Nigeria, designers will need to develop equitable labor practices that reduce inequality, invest in quality-control and community-building practices that increase trust, and develop materials-sourcing practices that increase economic as well as environmental sustainability. For example, the Makoko Floating School project might have been more successful had it integrated skills acquisition into its overall project to help create sources of revenue, skilled employment, and larger community around the school. Or the Wecyclers' recycling program could have encouraged a greater sense of value in sustainability, had its post-consumer plastic served as a resource for creating the desks and chairs that would go into the Makoko Floating School.

Generative Justice and Design Justice As Guidelines for Decolonized Design

The Design Justice Network and Ron Eglash have both articulated models of socially and environmentally sustainable production that can help overcome Nigeria's present sustainable design challenges. The Design Justice Network is a US-based organization creating design practices that center those who are often marginalized by conventional design principles and processes. They focus especially on combating the adverse effects that dominant approaches to design have on indigenous communities, and on rethinking dominant (i.e., Western) design approaches in order to address the challenges in these communities. The Design Justice Network promotes community-integrated design rather than top-down approaches. DJN takes a "designer as facilitator rather than expert" approach, and advocates that designers "work towards community-led and -controlled outcomes" and "prioritize design's impact on the community over the intentions of the designer." DJN also declares explicitly a commitment to "honor and uplift traditional, indigenous, and local knowledge and practices" as part of creating more justice in design. Similarly, in his essay "Of Marx and Makers: A Historical Perspective on Generative Justice," anthropologist Ron Eglash shows how sustainable development can be achieved through indigenously-grounded paradigms. [25] Eglash describes Ghanaian Adinkra production as an indigenous circular economy that is a model of sustainability (figure 8), and a Ghanaian Divine chocolate cooperative as an exemplar of labor equity, i.e social sustainability.[26]

[25] Eglash, Ron."Of Marx and Makers: an Historical Perspective on Generative Justice". *Teknokultura* 13, No 1 (2016). 245-269http://dx.doi.org/10.5209/rev_TK.2016.v13.n1.52096

[26] Arguably the most holistic and ecosystemic paradigm of sustainability, circular economy goes beyond single use and extraction focused models to create regenerative processes where waste is eliminated; Ellen MacArthur Foundation, 2017, https://www.ellenmacarthurfoundation.org/circular-economy/concept

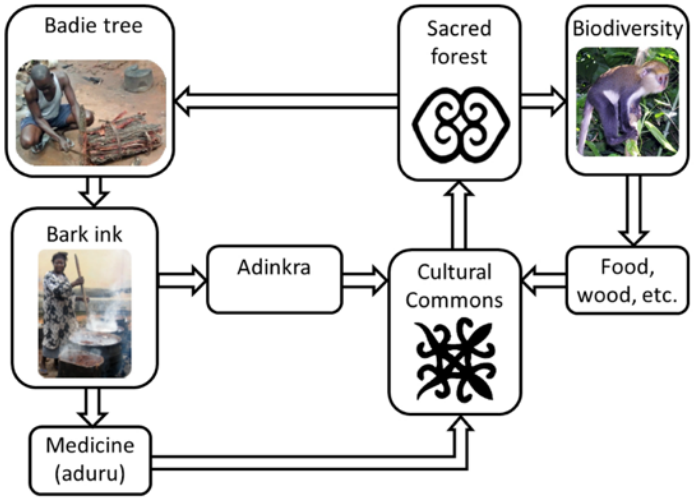

Figure 8. Image of culturally responsive production processed that generates justice of Ghanaian Adinkra textile creation. Image by Ron Eglash in "Of Marx and Makers: an Historical Perspective on Generative Justice". *Teknokultura* 13, No 1 (2016). 245-269 http://dx.doi.org/10.5209/rev_TK.2016.v13.n1.52096

Adhering to the principles that the Design Justice Network espouses, and emulating models like the ones Eglash presents, can help designers avoid culturally myopic design mistakes like those found in the Makoko Floating School and the market stall re-designs, and create more socially and culturally sustainable possibilities in Nigeria and other "developing" countries. Eglash's Divine chocolate cooperative example, based in local collaborative culture, and the Design Justice Network's principle, "before seeking new design solutions, we look for what is already working at the community level," also show that achieving greater sustainability needn't be an all-or-nothing enterprise, done through massive (and massively expensive) overhauls and importations of foreign aid and expertise. Eglash's Divine chocolate cooperative example shows that existing NGO paradigms can help to create equitable socially sustainable frameworks of design if and when local farmers control the form of that assistance. Perhaps the most critical difference between the Divine chocolate cooperative example and the aforementioned charitable

skills acquisition models is that the Divine cooperative is partially worker-owned, and is based on an indigenous principle of collaboration (*funtunfunefu*) that funnels shared resources directly back into the community.[27]

The Design Justice Network's principles and Eglash's examples from Ghana overlap in many ways. For example, the preservation of Adinkra principles that Eglash discusses exemplifies the Design Justice Network's principle of "us[ing] design to sustain, heal, and empower" and to "honor[ing] and uplift[ing] traditional, indigenous, and local knowledge and practices." Both DJN and Eglash stress the importance of social sustainability and cultural sustainability in order to successfully achieve environmental sustainability.

GUIDING PRINCIPLES

Based on what I learned from the guidelines put forth by the Design Justice Network, from the models that Eglash described, from the many interviews I conducted with Nigerian sustainable designers, and my research on successful sustainable design brands like Patagonia, I created the following set of guiding principles for my work:

- Sustainability is indigenous, meaning "of the land." Cultivating sustainable development means one should look to the land for materials—including not only traditional agricultural and mineral resources, but also modern waste streams—and look to existing and traditional forms of production as models.
- Sustainability is about progress, not perfection. Even incremental changes are positive changes, and are likely to be more sustainable and beneficial in the long term than massive overhauls.

[27] *Funtunfunefu* is an Adinkra meaning "by feeding you, I feed myself"

- Processes before products: sustainability should focus more on supply chains and relationships than “designed” products

The first principle, “Sustainability is Indigenous,” is informed by my focus on non-Eurocentric understandings of sustainability as critical to creating culturally relevant, effective solutions to sustainable design. The second, “Sustainability is about progress, not perfection,” is based on the research I did into how brands like Patagonia use transparency to build trust, and my desire to ensure that sustainability feels approachable to aspiring designers. The third principle, “Processes before products,” comes from the understanding that systems-focused interventions are more effective than product-focused interventions. This principle is informed by Ron Eglash’s aforementioned examples, as well as failures such as the Makoko floating school and Ada Umeofia’s market stall.

Prototypes

RECYCLED PLASTIC BAG WEAVING

Early in my thinking, I attempted to create more possibilities for sustainable designs in Nigeria by creating new products. I focused on designing sustainable textiles because they can be used for a wide range of product designs. I used high density polyethene bags, a common—and thus indigenous!—form of waste in Nigeria, so the design could be replicated easily. I processed these plastic bags (figure 9) into weft yarn using household items—an iron, parchment paper, and scissors—and then wove them on a single heddle loom, a simplified version of looms used in Nigeria to create indigenous strip weave textiles called Aso Oke, with cotton yarn warps (figure 10).

Figure 9. Two polyethylene bags from everyday market shopping in Lagos. Post-ironing process

Figure 10. Strip textiles woven from cotton warp and polyethylene-bag weft.

The process of designing these textiles was made difficult by Nigeria's inefficient infrastructure. The plastic weft "yarn" could not be made without an iron. Because of lack of electricity, the only alternative to relying on harmful generators that contribute to air pollution was using an inverter. Inverters store electrical energy for later use. However, as I learned from my textile experiments, they cannot power an iron without damaging the inverter due to voltage limitations. Creating the textiles gave me a first-hand understanding of how lack of electricity could negatively affect experimenting, ideating, and testing sustainable ideas. I was unable to make steady progress on completing the textiles due to the unreliable electricity, and eventually had to rely on the pollution-emitting generators I sought to avoid.

LAGOS FASHION WEEK "EXCESS NOTHING" SUSTAINABILITY CAMPAIGN

I also wanted to find out if I could get conventional designers with Nigerian elite clienteles to become interested in sustainability and take part in my research efforts. In order to connect with these designers, I created a small campaign for Lagos Fashion Week 2018 to encourage designers to think critically about issues of labor, inequality, and environmental sustainability in Nigerian fashion. For the project, entitled "Excess Nothing" (a play on "Zero Waste"), I created clothing pieces, a presentation, and a written manifesto that lived online. I made the clothing pieces from secondhand clothing and workers' uniforms embroidered and collaged with phrases and images about class (figure 11). I created pins with QR codes to take advantage of the popularity of mobile use in Nigeria and wore these on my clothing (figure 13). The QR codes linked to the campaign manifesto, a statement about the need to address the issues of waste, inequality, and loss of indigenous knowledge in Nigeria (figure 14). These concepts were designed to encourage sustainable design that not only thought about environmental sustainability, but also social sustainability through equitable labor, and cultural sustainability. I also created a companion presentation with information on the branding and social responsibility tactics of respected brands like Patagonia and Everlane to help designers see potential ways and benefits of incorporating sustainability (figure 15). Through this research I found that key themes for these sustainable brands were transparency and acknowledgement of imperfections. Both brands were open about the improvements they made and expressed a desire to make incremental changes rather than big transformations. I applied these concepts to my "Excess Nothing" presentation, proposing an alternative to "all or nothing" and "one and done" sustainability, advocating instead for incremental change and system building. My aim was to use these outfits as conversation starters, the QR code as follow

up business cards, and setup meetings with interested non-sustainable designers to share my presentation.

Figure 11. Images of the outfits worn during Lagos Fashion Week “Excess Nothing Campaign”. Photo by Moyo Oyelola.

Figure 12. Details from shirt worn during Lagos Fashion Week "Excess Nothing Campaign". Collage I created of street hawking West African woman carrying large amounts of gold and money to highlight class inequality

Figure 13. Close up image of QR pins. Right Photo by Moyo Oyelola

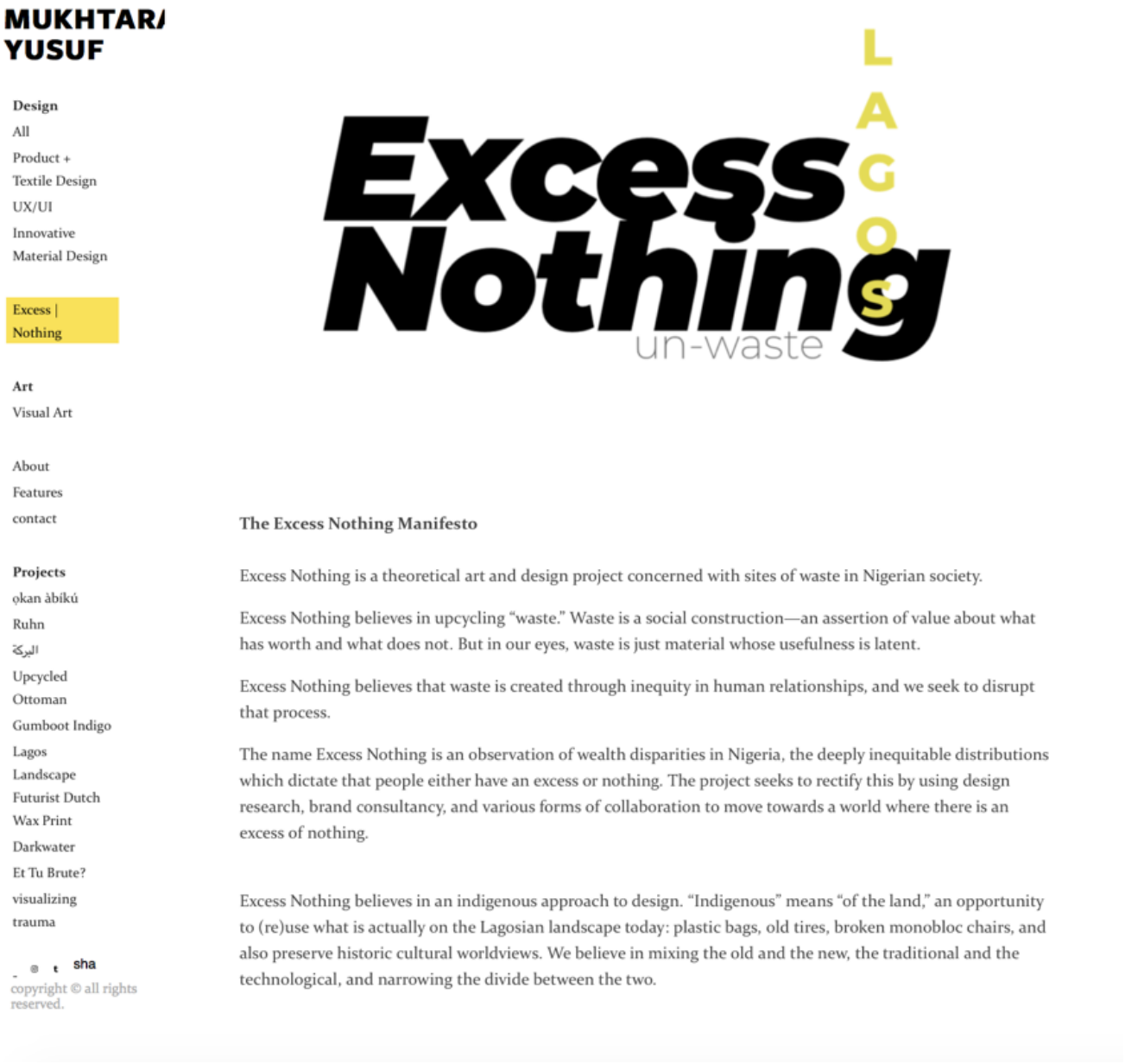

Figure 14. "Excess Nothing Manifesto" Screenshot from my personal website.

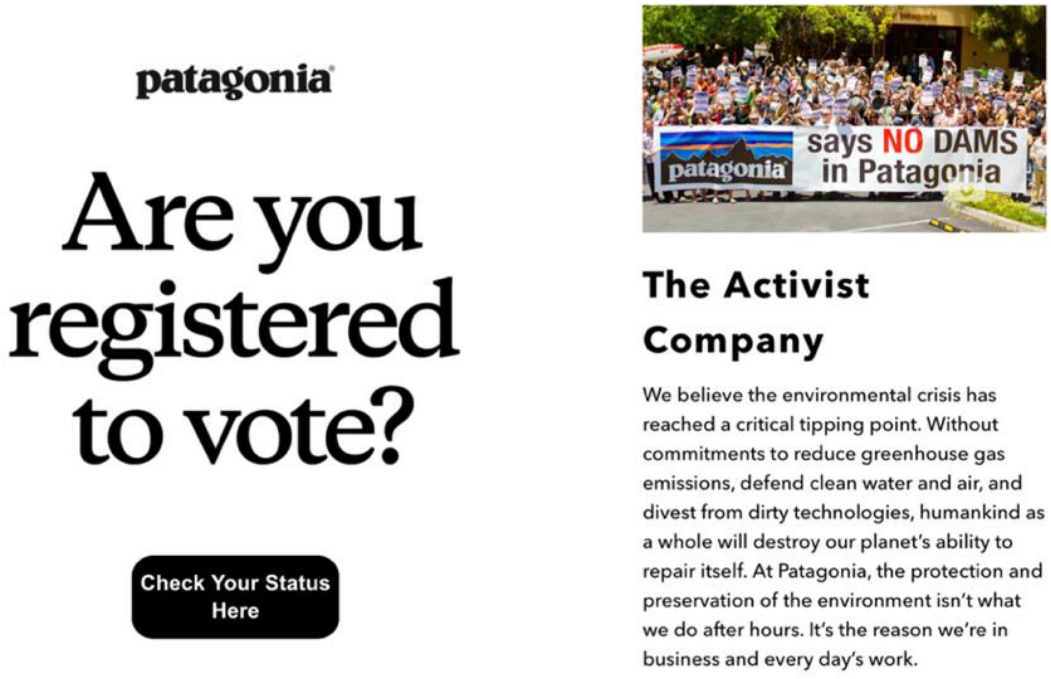

Figure 15. Slides from Excess Nothing Presentation about sustainable fashion exploring the political influence that some sustainable companies have been able to have by taking a radical transparent branding approach.

This intervention, however, sparked very little attention and feedback—only twelve hits in seven days—amidst the chaos and glamour of fashion week, which included Nigerian celebrities, power outages, and dramatic delays in start time. I believe that the project was not noticeable enough of an intervention to gain attention in this setting and would have benefited from a more dramatic call to participation like a large scale built-environment intervention and a strong online campaign before Lagos Fashion Week. Moreover, as I later learned through interviews, the tactics used by Everlane and Patagonia would need to be adjusted to be relevant in the Nigerian context. Nonetheless, the research on sustainable tactics from popular sustainable brands in this campaign were useful to my thinking. They informed the details of my guiding principles and helped me to create the material waste-environmental sustainability, labor equity-social sustainability, and

indigenous preservation-cultural sustainability certification categories for my thesis project, Àjọ.

Àjọ: A Certification to Promote Nigerian Sustainable Design

Knowing that both infrastructural failure and political corruption were insurmountable from a design perspective, I began to explore how systems could be created for Nigerian sustainable design. I focused on the digital space as my medium because mobile internet is a widely accessible and important tool for business in Nigeria. I began focusing on how I could create environmental, cultural, and social sustainability resources that fit established designers' business goals. I knew it would be wise to appeal to audiences interested in buying sustainable designs from Nigeria as a way to help fund the new system. Global audiences and local audiences looking to buy sustainably from Nigeria are often met with vague details about the practices of sustainable luxury brands in Nigeria. I searched for a way to detail and categorize the varying sustainable practices in Nigeria and I knew from my research on popular sustainable branding strategies and non-Western centered design examples, that transparency could help cultivate trust. Using a Yoruba concept of cooperative building, Àjọ, as a conceptual basis, I created a space for Nigerian sustainable design to co-exist rather than compete.

The Àjọ website (www.ajosustainabledesign.com) is a resource where aspiring Nigerian designers, diasporic Africans interested in sustainability, and eco-minded Western shoppers interested in Non-Western design can learn about, purchase, and promote sustainable Nigerian designs. To enable more possibilities for Nigerian sustainable design, the Àjọ platform focuses on global audience generation for established brands, transparency, and an understanding of sustainability that highlights cultural and social sustainability. The platform includes an e-commerce section for global consumers to order from the certified brands, a taxonomy of existing sustainable design practices in Nigeria through its certification system, and next steps for Nigerian sustainable design

development. The platform brings sustainable brands together into one space to help build community and a movement. The Àjọ pilot ecommerce page currently uses a "made to order" format for shopping that works better with artisan production styles of Nigerian designers, and commission fees and finder's fees from wholesalers will help fund the Àjọ platform. The site also includes links throughout to allow those interested in improving the Nigerian sustainable design industry to contact the platform and become a part of specific efforts identified as next steps for Nigerian sustainable design development such as renewable energy and biomaterials.

THE NAME

The Àjọ platform takes its name from a practice of collaborative resource pooling indigenous to Nigeria. During colonialism, Nigerian women were barred from borrowing money from banks. In order to pool funds for startups and business goals, they created Àjọs.[28] Àjọ is short for the Yoruba word Àjọṣepọ̀, which means "to do together." In Àjọs money is brought together and distributed in lump sums through sharing cycles, sometimes through third-party collectors who function like banks. Thus, the economic purchasing power of the collective becomes greater than its individual parts. The Àjọ social structure is thus comparable to the *funtunfunefu* Adinkra principle— "by feeding you, I feed myself"—that Eglash described in Ghana. Through Àjọ indigenous practice an otherwise marginalized group was able to use accountability and collaboration to overcome institutional limitations.

I chose Àjọ as a name to pay homage to the first Àjọs which stand as evidence that collective and community-based change can be made in Nigeria in the face of its current

[28] Osbuohien, Evans. "Esusu Nigeria". *The Global Informality Project.* Accessed July 6, 2019. http://www.in-formality.com/wiki/index.php?title=Esusu_(Nigeria)

structural challenges. The term signifies to a Nigerian audience that the project is focused on a collective effort towards Nigerian sustainable design development rather than competition. The sentiments of collective responsibility mark a sharp contrast to the air of distrustfulness found in Nigeria, and the Àjọ platform exists as a mediator for collaboration and resource pooling.

BRAND LOGIC

My inspiration for the overall brand logic of Àjọ comes from Nigeria in the 1970s. After speaking to many designers who expressed a sense of hopelessness concerning Nigerian sustainable development, I found myself deeply discouraged about the possibility of successful sustainable design in Nigeria. Thinking about the economic state of Nigeria, the lack of industries, the governmental corruption, and the infrastructural issues that made design such a challenge there, I, like many of the designers I spoke to, believed things could improve but was losing momentum. I searched for hope and wanted to ensure that my inspiration didn't repeat "West is Best" colonial stereotypes.

I found hope in Nigeria's past. The 1960s-1970s were a prosperous time in Nigeria during which agricultural industry thrived and the Naira was equal to the dollar and at times worth more than the dollar. The economic prosperity was notable, especially when compared to the present economy where the Nigerian Naira is worth 1/300th of the dollar.[29] Having gained independence in 1960, these first ten years in Nigeria's independence were significant. This time was one of self-sufficiency engendered by thriving industries, especially agriculture. I drew inspiration from 1960s-1970s Nigerian archival stamps that mark important moments in Nigerian development (figure 16). I chose this as a basis

[29] "Naira To Dollar Exchange Rate History 1972 To 2017 (Official Rates)". *Nigerian Banker* (Blog). https://www.Nigerianbanker.Com/Naira-To-Dollar-Exchange-Rate-History-1972-To-2017/

because the Àjọ is meant to refer back to this better time, while also signaling towards a hopeful turning point.

Figure 16. Images of 1970 stamp graphic design marking developments and moments in Nigerian history. LRZNH, thread "Checkout 1970s Issue Nigeria Stamps – Politics," Nairaland, March 15, 2018.https://www.nairaland.com/4399653/checkout-1970s-issue-nigeria-stamps

Drawing inspiration from the font on these vintage Nigerian stamps, I chose a serif typeface.[30] Serifs were made a prominent element of the typography and all the visual designs of the Àjọ platform as a way of honoring the handmade foundations of all design, a foundation seen clearly throughout Nigerian contemporary sustainable design.

Looking for a serif evocative of the 1960s and 70s, and able to hold the tonal marks found in the word *Àjọ*, I chose the open-source typeface Playfair Display, designed by Claus Eggars Sørensen in 2011 (figure 17). The type is described by the designer as representing the continued developments of the time and the new possibilities created by technology while also maintaining markers of the past. I chose the font for its roundness, a popular element of iconic 1960-70s fonts, as well as its playful air and high contrast, a

[30] Lupton, Ellen. *Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students.* New York: Princeton Architectural Press, 2004.

characteristic commonly found in the fonts of upscale fashion platforms such as Vogue and CFDA.[31] The font evokes these familiar fashion spaces and associations while staying just shy of actually emulating them.

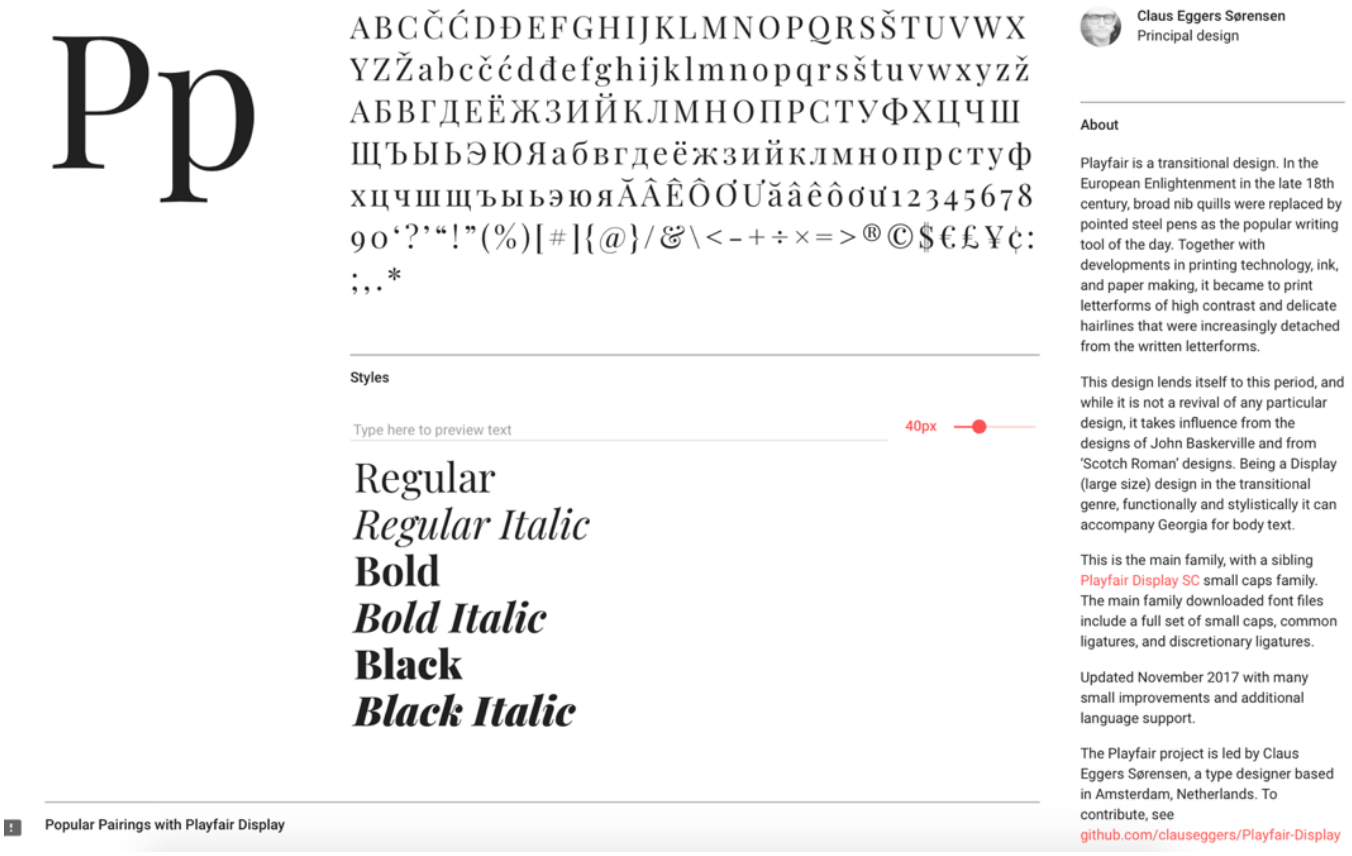

Figure 17. Screenshot of Playfair display font and explanation from Google Fonts.

All the images used in the Àjọ platform are archival images from the 1960s and 1970s of everyday life used with permission of the Nigeria Nostalgia Project Archive (figure 18). The presence of these images is engaged as an alternative to “craft focused” imagery. I chose to omit images of the crafting process from the website because of the

[31] Information is as described in “about” section of font page. [provide title of web page, url, date of access, etc.]

previously mentioned links between craft-branding and white savior narratives. Crafting images are only minimally present in the Àjọ informational video for a few seconds to give context on Nigeria's design production infrastructure (figure 19).

Figure 18. Still from Àjọ infographic film using Nigerian Nostalgia archive images. Photos Courtesy of the Nigerian Nostalgia Archive. https://nigerianostalgia.tumblr.com

Figure 19. Still from Àjọ infographic film on website and only images of behind the scenes making throughout publicly distributed visuals. Photos Courtesy of Maliko, Zashadu, and This Is Us.

Certification logos tend to rely on pictographs and symbols to communicate meaning. The popular gluten-free symbol depicting a straw of wheat with a diagonal line across it is one example. It is not uncommon to see such symbols depicted without text, especially when printed at small scales. These symbols are easy to replicate; however, they are often also mistakenly presumed to be universally decipherable.[32] Instead of using pictographs and assuming they would easily communicate to Nigerian and non-Nigerian audiences, I made typography-heavy circular shapes to connote wholeness and unity, on the assumption that most people would be able to read the text.

The brand's signature colors are indigo and sage green. The two colors reference the flora of Nigeria and serve as alternatives to "Afro maximalism."[33] The aesthetic opts for calming, muted, and cool colors to create a calm space on the website. The moss and

[32] Cho H., Ishida T. (2011) Exploring Cultural Differences in Pictogram Interpretations. In: Ishida T. (eds) The Language Grid. Cognitive Technologies. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-21178-2_9

[33] Popular culture aesthetic of "African" focused on bright colors, high saturations, and print patterns.

other shades of green on the certification symbols continue the reference to flora, and ecru is used as a complementary color to reference the color of aged paper one would commonly find in an archive. The brand's third color, a dark pink color, is solely for print, and references Nigerian clay. The brand's colors were heavily informed by a desire to depart from the "whitespace" gallery Eurocentric minimalist-focus commonly used on design focused websites.[34]

CERTIFICATION CATEGORIES

A key characteristic of the Àjọ certification system is its definition of sustainable design as a system of efforts that include environmental sustainability, cultural sustainability, and social sustainability. Environmentally sustainable practices consider the earth and agricultural materials; culturally sustainable practices work to frame sustainability in culturally appropriate ways and encourage the preservation of indigenous knowledge; and social sustainable practices ensure that environmentally sustainable interventions add value to the society, especially by improving equity within labor.

To find ways of articulating existing practices as sustainable standards, I researched existing sustainable standards. From this research on global sustainable design standards three platforms stood out as popular sustainability certifications.[35] B-Corp, which focused on a wide variety of product and service-oriented companies, Fair Trade, a certification commonly seen on foodstuffs and agriculturally-based products, and LEED, a certification popular globally as the standard for sustainable architecture.

---

[34] Batchelor, David. *Chromophobia*. London: Reaktion, 2000.

[35] Bauck. Whitney. "Fashionista's Complete Beginner's Guide to Ethical Fashion Certifications." *Fashionista*. April 25, 2019. Https://Fashionista.Com/2019/04/Ethical-Fashion-Certification-List

Unsurprisingly, Nigeria was deeply underrepresented in the number of certified buildings and companies for these certifications. There are only five LEED certified projects in Nigeria and no B-Corp or Fair Trade certified companies. From my interviews with designers, my own knowledge of Nigeria, and my research of these brands, their standards were not adaptable or culturally relevant to Nigerian design. Certifications like LEED and B-Corp opt for paper work and specific forms of documentation difficult to get in Nigeria. For example, LEED opts for water bills to verify water usage, these are hard to obtain in informal economy driven settings like Nigeria where water is dispensed inconsistently through private companies.

LEED has had its own issues with neglecting cultural sustainability, i.e., cultural preservation, in its certification systems, and has been criticized as a symbol of whitewashing and gentrification. In other words, because until recently LEED certification systems did not include cultural sustainability in their definition of sustainable architecture, certified projects have often also been gentrification projects.[36]

Though initiatives have been created to encourage more African companies to become certified by B-Corp, as yet these initiatives have not called for certifiers to make their standards more appropriate to and feasible in spaces like Nigeria. It is also important to note that Fair Trade generally focuses on agriculture that is unprocessed, or semi-processed, then exported to businesses outside of the country where laborers work. By focusing on the exportation of raw material such as coffee, Fair Trade is able to help farms and laborers only. These raw materials are then extracted and processed abroad. This raw extraction model replicates those seen throughout the colonial era that presume Africa as a resource for pillaging, rather than one for business and product development. If Fair Trade

[36] Gosrani, Chiraayu. "Column: Injustice behind LEED walls." *The Daily Tar Heel*, March 3,2016. Accessed June 16, 2019. https://www.dailytarheel.com/article/2016/03/column-injustice-behind-leed-walls

were to focus more on larger supply chains within these countries, ones that provide jobs to not only farmers, but dyers, artisans, and staff, they would arguably have a larger impact on the country's economy without perpetuating colonial tropes of material extraction.

CERTIFICATION DESIGN

In addition to creating certifications that clarified various sustainable tactics, I also wanted to ensure that their varying level of impact was acknowledged. To accomplish this, I created a gradient scale for each sustainable practice in each sustainability category, wherein the colors became darker to help communicate for example, that worker's housing was more socially sustainable than community engagement (figure 20). Through this gradient, users can understand where their practices stand, where they might begin, and which future goals to set.

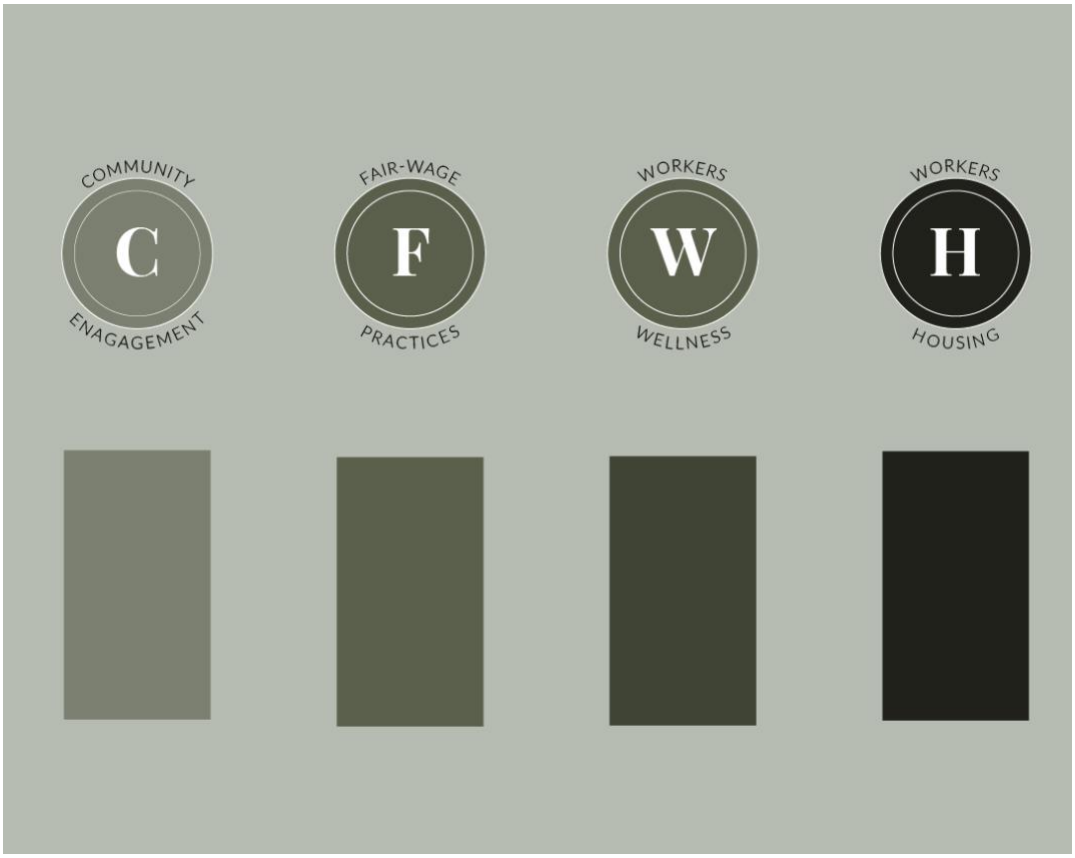

Figure 20. Screenshot of gradient colors and Àjọ certification symbols

I knew that the standards needed to be forward-looking in order to promote sustainable development in Nigeria. The "Next Step" certifications show those interested in sustainable design what they could choose to do next, if they wanted to become more sustainable, and if they wanted to garner more certification badges. The first goal I identified was renewable energy because it affected all designers and because of growing trends towards solar energy in Nigeria. Some promising developments towards this goal have been the projected lowering of tariffs in 2021 and a European investment of 95 million

Euros in Nigerian solar energy in May of 2019.[37] UN sustainable development goals are also linked to each certification category on the website so that users can understand how each of the certifications fits into the larger global picture of sustainable development.

Figure 21. Screenshot of "Next Step" seals for Environmental Sustainability category on the Àjọ mobile website.

[37] Takouleu, Jean Marie. "Nigeria: The European Union Invests Heavily In Renewable Energies" *Afrik 21*. Last Modified May 11, 2019. Accessed June 10, 2019.https://www.afrik21.africa/en/nigeria-the-european-union-invests-heavily-in-renewable-energies/

ONBOARDING AND VERIFYING SUSTAINABLE DESIGNERS FOR THE ÀJỌ WEBSITE

To begin the onboarding process for sustainable designers whose environmentally, culturally, and socially sustainable practices would be featured on the Àjọ website, I created a media kit with the core principles (figure 22) and general onboarding outline (figure 23).[38] I contacted several designers I had created relationships with during my research who I knew engaged sustainability in some form asking them to participate in the platform. I also contacted designers to gain introductions to other sustainable designers who might be suitable for the platform.

Figure 22. Screenshots from Àjọ media kit for onboarding.

[38] These images contain the initial branding design of the Àjọ, which was later amended to use the Playfair display font

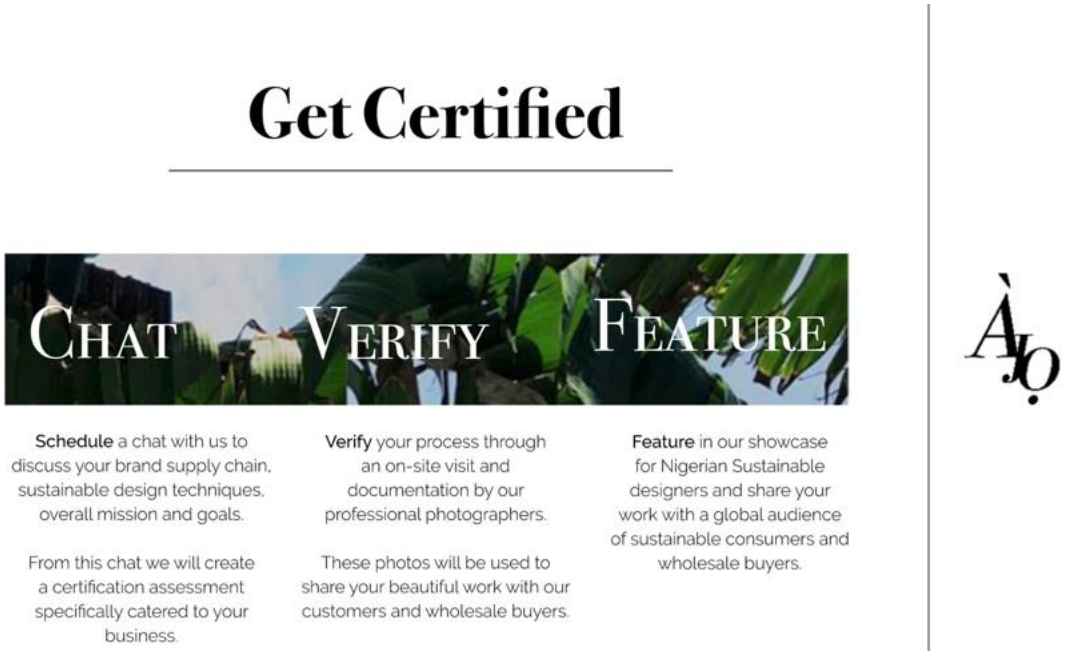

Figure 23. Screenshot from Àjọ Media Kit detailing onboarding process

Ultimately, I was able to onboard three brands: Zashadu, the aforementioned sustainable luxury leather accessories brand; This is Us, a ready-to-wear clothing brand, and Maliko, a footwear and bag brand. Using initial surveys and follow-up interviews for all designers except Zainab Ashadu, who I had already interviewed extensively, I began to identify connections between and categories for their sustainable techniques they used to approach sustainability.

The most critical aspect of the design process was creating a system that was adaptable to the designer's needs. Initially, verification was set to take place through an Àjọ verifier who would document the various practices of designers. Lags in this part of the process made it clear that something needed to be changed to make the certification process more feasible for designers. I tried several times to schedule verification site visits, but once I noticed that none of the designers seemed responsive, I asked them if they would openly let me know how they felt about the on-site visits so that they could help contribute

to improving the process. Zainab Ashadu of Zashadu told me that while she was willing to share her own photos of the process, she was not open to an on site-visit. When asked to expand on why, so that I could adapt the verification process in the future, she stated that there was a huge disparity between the way that the bags were made and the final product. She said she felt it was important to leave out a certain level of reality in order to protect the brand. Other designers' reasons included an acknowledgement of a kind of power dynamic. Maliko's designer Ebuka Omaliko stated that he felt that it was an authoritative form of monitoring, so he was resistant to it, and he thought many other designers would feel the same. Oroma Itegboje of This is Us said that because she was in between collections and worked at many sites rather than a singular studio, a site visit would not be ideal.

The resistance that all three designers had towards having on-site visits was a major design challenge. It is not completely clear whether these resistances were only for the reasons stated, but I suspect they are also caught up in issues of trust, and are concerns about maintaining trade secrets. Amending the site visits to ask for self-generated documentation from each of the designers was important for the feasibility of the certification process during the pilot, because when the site visits seemed like an inflexible requirement, the designers became unresponsive and unwilling to move forward in the process. However, in the future I am interested in finding ways to create a stronger verification system. For example, the designers could provide images that could be coupled with random informal on-site visits that do not include documentation. The verification aspect of onboarding has given me an important lesson about the design challenge ahead with the verification system and forced me to ask how a trustworthy verification standard can be built in a context where trust is lacking. Existing stringent verification processes are a possible reason why, as of yet, sustainable design certifications such as LEED, B-Corp,

and Fair Trade haven't been successful in Nigeria. Perhaps through building a rapport with designers over time, collaborating with them on design projects in their production spaces, and/or cultivating trust with their staff, I will gain new avenues of verification.

Exhibition

Sharing the idea behind Àjọ was my main goal for the exhibition. I wanted to explain the reasoning and purpose behind the platform and certification and also lead people to the website. My design was informed largely by the limitations of the space I was in, Museum for Human Achievement, as well as the desire to create an eco-friendly exhibition. All the paint used for the exhibition was zero VOC (Volatile Organic Compounds) (figure 24). I also eliminated display vinyl as it is a one-use material, and instead opted for premium paper that is partially recycled (figure 25) and created displays using pant hangers. Choosing a paper rather than vinyl-focused display also served the purpose of making the exhibition easily replicable, especially in Nigeria where I am likely to have limited access to vinyl cutters. I also used QR codes in lieu of screens due to limited access to monitors, another adjustment that makes the display more easily replicable in Nigeria. The QR codes make it possible for people to access the website and explore for themselves. The QR code takeaways are on plantable paper (figure 26), which enables viewers to plant wildflower seeds after using it. I made these the sole takeaways of the exhibition to eliminate the waste inherent in exhibitions from pamphlets that people only read once or twice and then throw away. The exhibition also featured calabash lampshades (figure 27). The calabash is an indigenous object used throughout Nigeria for the ritual of sharing. I was inspired to incorporate these materials as a representation of Àjọ's mission.

Figure 24. Image of Àjọ logo on gallery wall. Photo Credit: Kira Street.

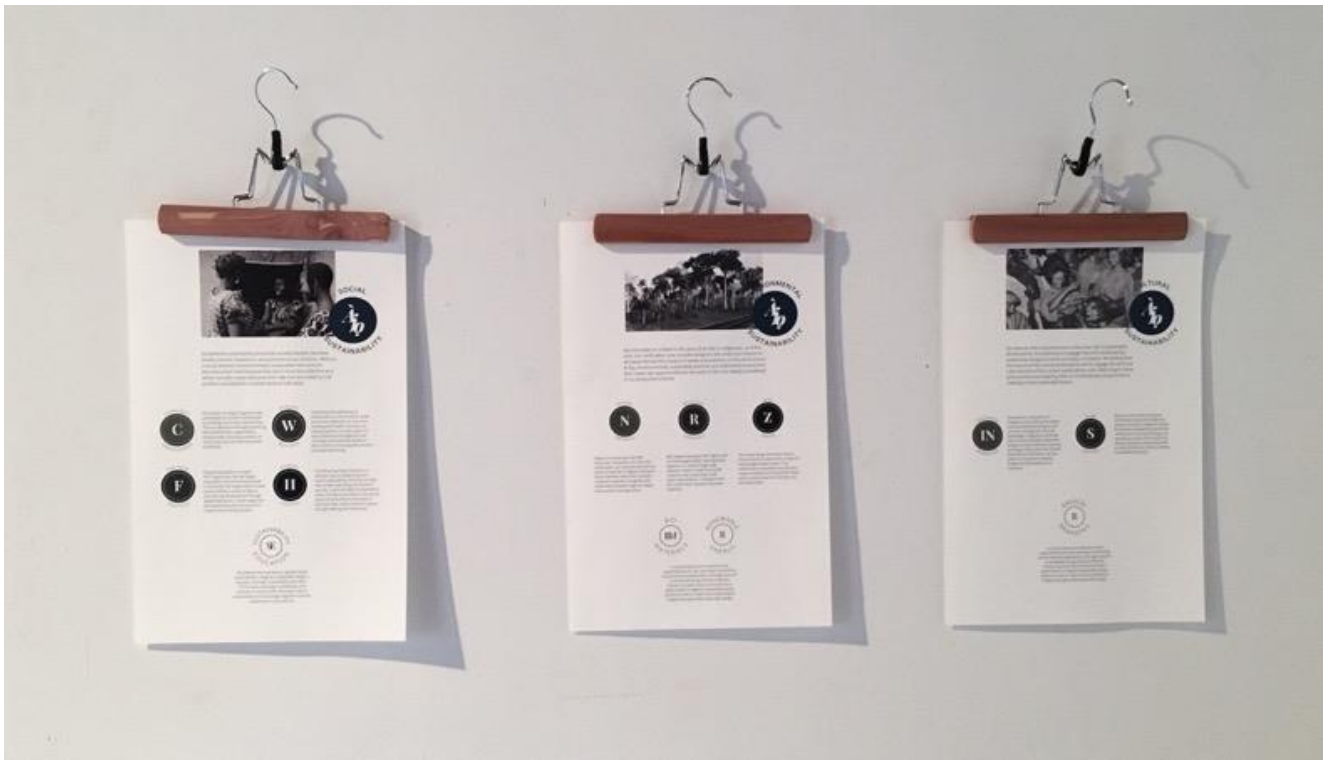

Figure 25. Certification guidelines. Photo Credit: Kira Street

Figure 26. Close-up of QR code cards. Photo Credit Kira Street

Figure 27. Images of information display and calabash lamps during exhibition. Photo Credit: Kira Street

Contribution and Next Steps

In their journal article "Unfolding the Political Capacities of Design," scholars Fernando Domínguez Rubio and Uriel Fogué describe "the limits of the political capacities of design" and a "recogni[tion of] the irreducible gap that separates the programs enfolded through design and the ways in which they are ultimately received, activated, transformed, or simply ignored." [39] Away from the common understanding that design creates, prescribes, or mandates, the authors instead propose that design is the encoding of a set of capacities that may be unfolded by users in both predictable and unpredictable ways. Social dynamics, infrastructure and corruption cannot be designed away, but the Àjọ website has the potential to become a social space where these issues are designed through community collaboration.

By setting out environmental sustainability, cultural sustainability, and social sustainability as interconnected Àjọ helps broaden definitions of sustainability for those who may narrowly define the concept. The website explains why all three are needed, and some of the ways that designers in Nigeria have achieved them. By calling designers to think of sustainability in this way, the website has the potential to help guide more sustainable design interventions in Nigeria.

Ultimately, the model of the Àjọ pilot is based on the hope that extending or inspiring trust and giving digital space for collaboration would be enough to generate trust and collaboration. This model, however, has not proved enough to make businesses willing to be held fully accountable through site visit verifications. For this reason, my next goal with the project is to create greater accountability within the system, I will approach the

[39] Rubio, Fernando Domínguez. "Unfolding the Political Capacities of Design". *What Is Cosmopolitical Design? Design, Nature and the Built Environment.* (2015): 143-160. https://escholarship.org/uc/item/3g25790c

pursuit for greater accountability from multiple angles, informed by key lessons I gained from this first pilot of Àjọ.

First, although I set out with the intent to avoid Western models and paradigms altogether, they are still present in the work through my design tools, for example my typeface, and through the influence that sustainable brands such as Patagonia and Everlane had on my brand guidelines. Rather than eliminating Western influence entirely, I believe the project can be improved by focusing on eliminating the *problematic* aspects of Western influence. Based on my criticisms of existing approaches to sustainable design in Nigeria, I believe the key aspects of Western influence to avoid are export-only business models, White Savior-focused craft branding, and "one and done" projects that lack community integration. As shown in the examples provided through Eglash's work, it is possible to create efficiently equitable labor models with some Western elements present, by centering community worker ownership and indigenous ideals.

My first step to accomplishing greater accountability will be to shift focus from design brands to charitable skills acquisition organizations as partners in the next phase of Àjọ. I believe that the project would also benefit from a greater presence of external NGOs, similar to Eglash's Divine chocolate cooperative model, such as the United Nations Sustainable Development Goals (UNSDG) Project. An affiliation with a reputable institution could help avert infrastructural failure and encourage trust. The United Nations Sustainable Development Goals range from "Zero Hunger" to "Responsible Consumption" and "Good Health and Wellbeing" and are already an aspect of the current Àjọ model. Charitable skills acquisition organizations operate in a similar sphere as NGOs and are more likely to give me the ability to influence and verify production systems if I am affiliated with a known organization. Through affiliation Àjọ could assist the UNSDG, or

another NGO in creating more culturally sustainable approaches to Nigeria's sustainability challenges.

In partnering with an NGO and a charitable skills acquisition organization, my first course of action will be to acquire funds to replace the generators used by these charitable skills acquisition organizations with renewable energy resources. If I can successfully make skills acquisition organizations more environmentally sustainable in this way, I will be able to consequently also make the brands they produce for more environmentally sustainable.

Considering that community trust building is one of most difficult challenges to surmount in Nigeria, pairing with skills acquisition organizations that already value community and equality, seems like the most politic way to begin moving beyond these challenges. This plan to build on an existing approach, if successful, could then help create a larger system and gain the trust of established and aspiring sustainable designers. Successfully executing my plan to make charitable skills acquisitions systems more environmentally sustainable, could serve as a proof of concept for Àjọ. Long term, I would also like to use this trust building to conduct design research that centers artisans' voices and explore the possibility of manufacturing zippers, buttons, etc from post-consumer waste.

While I continue to explore ways to make the Àjọ certification system accountable, I plan to build a community of people invested in Nigerian-centered sustainability. In October of 2019, the project will be featured at Lagos' first Design Week, a conference focused on Nigerian product design, social, and graphic design. To help facilitate community building, I have thus far placed calls to get involved with Àjọ throughout the website on pages such as the "Work With Us" section of the website found at https://www.ajosustainabledesign.com/collaborate and at the bottom of each sustainable

category page under “Next Steps.” Mobilizing networks and partnerships in these ways, alongside my plan to create institutional alignments, will help create more momentum for the project.

Àjọ is the first of many steps I plan to take in enabling possibilities within Nigerian sustainable design and amongst Nigerian sustainable designers. I see the Àjọ project as a creation of a set of new potentials that are still unfolding and will remain moving and adaptable as I learn more. There are many structural issues the platform and certification could not resolve. Nevertheless, by putting forth a concept of sustainability that includes culturally relevant and socially sustainability, there is potential to promote a holistic sustainable paradigm that will help create a more sustainable Nigeria.

Bibliography

Adekoya, Remi. "Democracy Has Failed In Nigeria When Voters No Longer Care Who Wins". *The Guardian*. March 1, 2019. Accessed June 15, 2019.

https://www.thegaurdian.com/commentisfree/2019/ma01/demogcracy-failed-nigeria-turnout-presidential-election

Allyn, Gaestel. "Things Fall Apart." *The Atavist Magazine*, February 2018. Accessed February 20, 2019

https://magazine.atavist.com/things-fall-apart-makoko-floating-school

Batchelor, David. *Chromophobia*. London: Reaktion. 2000

Bauck, Whitney. "Fashionista's Complete Beginner's Guide to Ethical Fashion Certifications." *Fashionista*. April, 25, 2019. Accessed June 12, 2019.

https://Fashionista.Com/2019/04/Ethical-Fashion-Certification-List

Bright, Jake. "Meet 'Nollywood': The Second Largest Movie Industry In The World". *Fortune*, June 24, 2015. Accessed May 10, 2019.

https://fortune.Com/2015/06/24/Nollywood-Movie-Industry/

CGTN Africa. "Second-Hand Clothing Industry Booms In Nigeria," Hosted By Phil Ihaza, *Global Business*, May 19, 2018. Accessed July 25, 2019.

https://www.youtube.com/watch?v=e4vwrw_zugs

Cho H., Ishida T. "Exploring Cultural Differences in Pictogram Interpretations." *The Language*. Springer, Berlin, Heidelberg. (2011). 133-148

https://doi.org/10.1007/978-3-642-21178-2_9

"Corruption Perceptions Index 2018- Transparency International" Transparency International. Accessed August, 5, 2019.

https://www.transparency.org/cpi2018/results

Earth Day.Org, “Top 20 Countries Ranked by Mass of Mismanaged Plastic Waste”, April 6, 2018. Accessed August 5, 2019.

https://www.earthday.org/2018/04/06/top-20-countries-ranked-by-mass-of-mismanaged-plastic-waste/

Eglash, Ron.“Of Marx and Makers: an Historical Perspective on Generative Justice”. *Teknokultura* 13, No 1 (2016). 245-269

http://dx.doi.org/10.5209/rev_TK.2016.v13.n1.52096

Escobar, Arturo. *Designs for The Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Durham and London. Duke University Press, 2018

Rubio, Fernando Domínguez, Uriel Fogué. “Unfolding the Political Capacities of Design”. *What Is Cosmopolitical Design? Design, Nature and the Built Environment*. (2015): 143–160.

https://escholarship.org/uc/item/3g25790c

“Five Things About Nigeria: The Superpower With No Power”. BBC. February 14, 2019, Accessed May 5, 2019.

https://www.bbc.com/news/world-africa-47217557

Food and Agriculture Organization of the United Nations, “Progress towards sustainable forest management”. *Global Resources Assessment* 2005, Accessed June 27, 2019.

http://www.fao.org/3/A0400E/A0400E14.pdf

Gosrani, Chiraayu. “Column: Injustice behind LEED walls.” *The Daily Tar Heel*, March 3, 2016. Accessed June 16, 2019.

https://www.dailytarheel.com/article/2016/03/column-injustice-behind-leed-walls

Health Effects Institute. 2019. State of Global Air 2019. Data source: Global Burden of Disease Study 2017. IHME, 2018. Accessed August 5, 2019.

https://www.stateofglobalair.org/data/#/air/table

Kazeem, Yomi. "The Global Rise Of Nigeria's Afrobeat Music Could Help Fix The Local Industry's Problems". *Quartz Africa*, October 4, 2018. Accessed May 4, 2019.

https://Qz.Com/Africa/1411996/The-Global-Rise-Of-Nigerias-Afrobeats-Music-Could-Help-Fix-The-Local-Industrys-Problems/

Kuenzi, Michelle T. "Social Capital and Political Trust in West Africa". *Afrobarometer Working Papers.* No. 96. (2008).

https://www.files.ethz.ch/isn/91878/AfropaperNo96.pdf

Lewis, Peter. "The Dysfunctional State of Nigeria" in *Short of The Goal: U.S. Policy and Poorly Performing States*, Birdsall, Nancy. Washington, D.C.: Center for Global Development. (2006).

https://www.cgdev.org/sites/default/files/archive/doc/short ofthegoal/chap3.pdf

Lupton, Ellen. *Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students.* New York: Princeton Architectural Press, 2004.

Malo, Ify. "60% Rural Electrification Target By 2020 Feasible". *Energy Central*, January 30, 2019. Accessed May 5, 2019.

https://www.energycentral.com/news/60-rural-electrification-target-2020-feasible

"Naira To Dollar Exchange Rate History 1972 To 2017 (Official Rates)". *Nigerian Banker* (Blog).

https://www.Nigerianbanker.Com/Naira-To-Dollar-Exchange-Rate-History-1972-To-2017/

Numbeo. "Pollution Index for Country 2019 Mid-Year. Accessed August 5, 2019. https://www.numbeo.com/pollution/rankings_by_country.jsp

Olowosejeje, Samuel Ayokunle. "Nigeria's Unreliable Electricity Costs Its Economy $29 Billion A Year—Solar Power Would Save Billions". *Quartz Africa*. June 1, 2019. Accessed June 14, 2019.

https://qz.com/africa/1632978/nigeria-solar-power-could-fix-costly-electricity-problems/

Osbuohien, Evans. "Esusu Nigeria". *The Global Informality Project*. Accessed July 6, 2019.

http://www.in-formality.com/wiki/index.php?title=Esusu_(Nigeria)

Our World in Data. "Interpersonal trust attitude". May 22, 2019. Accessed June 16, 2019. https://ourworldindata.org/trust

Page, Matthew. "Nigeria's Small Businesses Want Government Help, But Corruption is Draining It Away". *Quartz Africa*, April 2, 2019. Accessed May 1, 2019.

https://qz.com/africa/1585957/nigerian-corruption-is-draining-its-small-businesses/

Papanek, Victor J. *Design for the Real World: Human Ecology and Social Change*. Chicago: Academy Chicago Publishers, 2012.

Takouleu, Jean Marie. "Nigeria: The European Union Invests Heavily In Renewable Energies" *Afrik 21*. Last Modified May 11, 2019. Accessed June 10, 2019.

https://www.afrik21.africa/en/nigeria-the-european-union-invests-heavily-in-renewable-energies/

Valavanis, Adam. "Nigerians' Growing Cultural Influence Around the World". Council on Foreign Relations, November 7, 2018. Accessed May 4, 2019.

https://www.cfr.org/blog/nigerians-growing-cultural-influence-around-world